Logic is the Pattern and Motif of the Arrangement that is consistent with the Dimension of Reality and its Abstract, as the Fundamental Subject of the Logic Problem.

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Abstract

This article explores the reconceptualization of logic as a structure that transcends traditional formalism, by understanding it as the patterns and motifs of an arrangement that are consistent in its dimensions of reality and abstraction. Through phenomenological and ontological analysis, this study reveals that the fundamental problem of logic does not lie in the formal validity of propositions, but in the tensional relationship between the intentional structure of consciousness and the patterns inherent in reality itself. By integrating the perspectives of Husserlian phenomenology, Heideggerian ontology, and contemporary philosophy of mind, this article demonstrates that logic is not a neutral instrument for the manipulation of symbols, but a fundamental mode of Being-in-the-world that contains existential motives in each of its operations.

Introduction: Going Beyond Logical Formalism

The conventional understanding of logic as a formal system for the manipulation of propositions and the validation of arguments has dominated the Western philosophical tradition from Aristotle to contemporary mathematical logic. However, this approach faces fundamental limitations in explaining how logic operates in concrete human existence and how logical structures relate to the fabric of reality itself. The reconceptualization of logic as "the patterns and motifs of an arrangement that follows from the dimensions of reality and its abstraction" offers a more holistic and existentially grounded perspective.

The concept of "pattern and motif" indicates that logic has two interrelated yet distinct dimensions. The "pattern" dimension refers to the structure or configuration that can be identified and analyzed objectively, while the "motif" dimension refers to the directedness or intentionality that gives meaning and purpose to the structure. The combination of these two dimensions creates an understanding of logic that is not only descriptive but also normative and teleological.

"Coherent arrangement" in this context does not only mean sequential arrangement, but coherent interconnectedness that reflects the deep structure of reality and consciousness. This implies that logic is not an arbitrary system of rules, but a reflection of the fundamental patterns that govern both thought and being. The distinction between the "dimensions of reality and its abstract" recognizes the ontological complexity of logic operating in multiple levels of existence, from empirical manifestations to pure conceptual structures.

Phenomenology of Logical Patterns: Intentionality and the Structure of Consciousness.

Edmund Husserl in *Logical Investigations* has identified that logical structures are inseparable from the intentional structures of consciousness. Every act of thinking has the characteristic of intentionality - consciousness is always consciousness of something - and this structure forms the foundation for logical operations. From a Husserlian perspective, logical patterns are not external rules that are applied to the content of thought, but intrinsic structures that emerge from the nature of consciousness itself.

The concept of "motive" in a phenomenological context refers to what Husserl calls "motivation" - the way consciousness is directed toward objects and how this directedness shapes the structure of experience. When we engage in logical reasoning, we are not only manipulating abstract symbols, but actualizing motivational structures that are grounded in our existential engagement with the world. Logical patterns, thus, are the crystallization of motivational trajectories that guide consciousness in its encounter with reality.

Husserl's analysis of categorical intuition shows that logical forms such as "and," "or," "if-then" are not purely formal structures, but expressions of fundamental ways consciousness constitutes objectivity. These logical patterns emerge from what he calls "passive synthesis" – pre-reflective processes through which consciousness organizes its experience into coherent wholes. This indicates that logical structures are not imposed from the outside, but arise from the intrinsic dynamics of consciousness in its intentional relatedness to the world.

Phenomenological analysis also reveals the temporal dimension of logical patterns. Consciousness does not operate in timeless logical space, but in lived temporality where past retentions, present impressions, and future protentions are interrelated in dynamic synthesis. Logical reasoning, therefore, cannot be understood as static manipulation of propositions, but as temporal unfolding in which motivational patterns guide consciousness from premises towards conclusions in a coherent trajectory.

Ontology of Motives: Heidegger and Logic as a Mode of Being.

Martin Heidegger in *Being and Time* and later works criticized the conception of logic as mere instrumental reason, arguing that logical thinking is the fundamental mode of Dasein's Being-in-the-world. In the Heideggerian perspective, what we call "motives" in logical patterns are actually expressions of the care structure (Sorge) that constitutes the Being of Dasein. Logical operations, thus, are not neutral activities but ways of caring about the world and our place in it.

Heidegger's notion of "logos" in *the Introduction to Metaphysics* reveals that logical patterns are not merely human constructions but ways Being reveals itself. Logos as a "gathering" (Versammlung) shows that logical coherence reflects fundamental unity and interconnectedness that characterizes Being itself. Logical patterns, in this sense, are manifestations of what Heidegger calls "the Same" (das Selbe) – the underlying unity that makes possible both thinking and being.

The concepts of "thrownness" (Geworfenheit) and "projection" (Entwurf) in Heidegger's existential analytic provide insight into the motivational dimension of logical thinking. We don't choose logical patterns arbitrarily, but find ourselves already thrown into particular ways of understanding that shape our logical operations. At the same time, logical thinking is a mode of projection through which we project possibilities for understanding and action. The motif in logical patterns, thus, reflects the existential structure of Dasein as a thrown projection.

Heidegger's later thinking tentang "the fourfold" (das Geviert) dan "the thing" (das Ding) menunjukkan bahwa logical patterns tidak hanya characterize human thinking tetapi juga ways things themselves are interconnected dalam world. Motif dalam logical structures reflects what he calls "the play" (das Spiel) of concealment dan unconcealment yang constitutes the truth of Being. Logical coherence, dalam this perspective, adalah not human achievement tetapi participation dalam self-revealing of Being itself.

The Dialectic of Reality and Abstraction: Between Empirical and Conceptual.

The tension between the dimensions of reality and the abstract in logical patterns reflects the fundamental philosophical problem of the relationship between thought and being, universal and particular, concept and intuition. Immanuel Kant in *his Critique of Pure Reason* has identified this tension in his analysis of synthetic a priori judgments, in which logical forms should be applicable to empirical content but not reducible to merely empirical generalizations.

Georg Wilhelm Friedrich Hegel in *the Science of Logic* developed a dialectical understanding of this tension, arguing that the opposition between abstract logical forms and concrete reality is itself moments in the self-development of absolute Ideas. In the Hegelian perspective, logical patterns are not static structures but dynamic processes through which reality constitutes itself. Motives in logical development reflect what Hegel calls "the cunning of reason" - the way rational necessity realizes itself through apparent contingency and particularity.

Contemporary philosophy of mind, khususnya work dari John McDowell dalam *Mind and World*, attempts to overcome dualism antara conceptual space of reasons dan empirical space of causes dengan mengargumentasikan bahwa rational capacities are already involved dalam perceptual experience itself. Logical patterns, dalam this view, tidak imposed dari luar pada raw empirical data, tetapi structure the way we encounter world dari the very beginning. Motif dalam logical operations reflects what McDowell calls "second nature" - acquired rational capacities yang become natural ways of responding to world.

The phenomenological tradition, especially Maurice Merleau-Ponty in *the Phenomenology of Perception*, emphasizes the embodied dimension of logical thinking. Logical patterns do not operate in disembodied cognitive space but are grounded in corporeal intentionality and motor responses to environment. Logical structures, thus, have a motivational dimension because they reflect fundamental ways embodied consciousness orients itself toward the world for practical and theoretical purposes.

Fundamental Problem: Structural Tensionality in Logic.

The fundamental problem of logic, as indicated in the title of this article, does not lie in the technical issues in formal systems but in the fundamental tensions that structure logical thinking itself. The first tension is between the universal character of logical forms and the particular contexts in which logical operations take place.

Logical patterns claim universal validity, but they always operate in specific cultural, historical, and existential contexts that shape their meaning and application.

Tension kedua adalah antara descriptive dan normative dimensions dari logical thinking. Pola-pola logis seem to describe how thinking actually operates, namun they also prescribe how thinking should operate untuk achieve truth dan coherence. Motif dalam logical patterns reflects this dual character - they are both expressions dari actual thinking processes dan ideals yang guide improvement dari those processes. This tension cannot be resolved dengan simply choosing one side over the other, tetapi must be understood sebagai productive contradiction yang drives development dari logical thinking.

Tension ketiga adalah antara formal rigidity dan contextual flexibility dalam logical operations. Formal logical systems require strict adherence ke rules dan procedures, namun actual logical thinking involves creative interpretation dan adaptation dari those rules ke new situations. Motif dalam logical patterns provides the guidance untuk this creative adaptation, reflecting what Aristotle calls "phronesis" - practical wisdom yang knows how to apply universal principles to particular circumstances.

Tension keempat adalah antara individual subjectivity dan intersubjective validity dalam logical thinking. Logical patterns emerge dari individual thinking processes, namun they claim validity yang transcends individual perspectives. Motivational dimension dari logical structures reflects this tension - they must be personally meaningful untuk individual thinkers namun also shareable across different perspectives. This requires understanding logical thinking sebagai fundamentally communicative activity yang aims at mutual understanding dan agreement.

Logical Hermeneutics: Interpretation and Understanding.

Hans-Georg Gadamer in *Truth and Method* develops a hermeneutical approach to understanding that is relevant for reconceptualizing logical thinking. In the Gadamerian perspective, logical patterns are not self-evident structures but require interpretation that takes into account historical horizon and dialogical context. Logical patterns, thus, are not timeless truths but historically situated ways of understanding that emerge from tradition and are open to revision through dialogue.

Gadamer's concept of "fusion of horizons" (Horizontverschmelzung) provides model untuk understanding how logical patterns mediate antara different perspectives. Motif dalam logical structures reflects the anticipatory character dari understanding - the way we project possible meanings dan are open to correction melalui encounter dengan otherness. Logical thinking, dalam this sense, adalah mode

of interpretation yang aims at expanding our understanding melalui creative dialogue dengan tradition dan dengan others.

Paul Ricoeur dalam *The Conflict of Interpretations* develops similar themes, emphasizing hermeneutical dimension dari rational thinking. Logical patterns, dalam Ricoeur's view, are not neutral instruments tetapi expressions dari fundamental life interests dan values. Motivational dimension dari logical structures reflects what he calls "the archaeology of the subject" - the way our thinking is shaped oleh unconscious desires dan fears, serta "the teleology of the subject" - the way our thinking is oriented toward future possibilities untuk fulfillment dan meaning.

Hermeneutical approach to logical thinking also emphasizes dialogical character dari rational inquiry. Logical patterns emerge tidak dari isolated individual reflection tetapi dari communicative practices dalam mana different perspectives encounter each other dan seek mutual understanding. Motif dalam logical structures reflects this communicative orientation - they aim tidak hanya at individual clarity tetapi at shared understanding yang can guide collective action dan inquiry.

Logical Pragmatics: Context and Application.

Charles Sanders Peirce dalam his pragmatist philosophy mengembangkan understanding of logical thinking yang emphasizes its practical dimension. Dalam perspektive Peircean, meaning dari logical concepts is determined oleh their practical consequences dalam inquiry dan action. Pola-pola logis, dengan demikian, are not abstract structures tetapi habits of thought yang guide successful interaction dengan environment. Motif dalam logical patterns reflects what Peirce calls "the fixation of belief" - the way thinking aims at establishing stable habits yang can guide effective action.

John Dewey dalam *Logic: The Theory of Inquiry* further develops this pragmatist approach, mengargumentasikan bahwa logical thinking is fundamentally problem-solving activity yang emerges dari problematic situations dalam experience. Logical patterns, dalam Dewey's view, are tools untuk transforming indeterminate situations into determinate ones melalui intelligent inquiry. Motivational dimension dari logical structures reflects their instrumental character - they are motivated oleh practical needs untuk understanding dan control.

Ludwig Wittgenstein dalam his later philosophy, khususnya *Philosophical Investigations*, emphasizes linguistic dan social dimensions dari logical thinking. Logical patterns, dalam Wittgensteinian perspective, are not mental structures tetapi features dari language games yang are embedded dalam forms of life. Motif dalam logical operations reflects what Wittgenstein calls "the rough ground" of ordinary

language use - the practical contexts dalam mana logical concepts get their meaning melalui use rather than through abstract definition.

Contemporary speech act theory, developed by J.L. Austin and John Searle, provides additional insight into the practical dimension of logical thinking. Logical operations are not merely descriptive statements but performative acts that do things in the world. Logical patterns, thus, have a motivational dimension because they are oriented toward achieving specific practical goals in communication and social interaction. This performative aspect of logical thinking connects it with broader patterns of social practice and institutional structure.

Complex Epistemology: Knowing and Being.

Contemporary developments in epistemology, especially the work of philosophers such as Alvin Plantinga in *Warrant and Proper Function* and Ernest Sosa in *A Virtue Epistemology*, emphasize that logical thinking cannot be separated from the broader context of epistemic virtues and proper functioning of cognitive faculties. Logical patterns, in this perspective, are not self-validating structures but expressions of healthy cognitive functioning that is oriented toward truth and understanding.

Enactivist approaches dalam cognitive science, developed oleh philosophers seperti Francisco Varela dan Evan Thompson, argue that logical thinking is grounded dalam embodied interaction dengan environment rather than abstract manipulation of mental representations. Logical patterns, dalam this view, emerge dari sensorimotor patterns dan are shaped oleh the structure of our embodied engagement dengan world. Motivational dimension dari logical structures reflects their origin dalam adaptive responses to environmental challenges.

Systems theory approaches, khususnya work dari Niklas Luhmann dalam *Social Systems*, provide insight ke dalam way logical patterns operate dalam complex adaptive systems. Logical operations, dalam this perspective, are ways systems reduce complexity dan maintain identity melalui selective responses to environment. Motif dalam logical structures reflects what Luhmann calls "autopoiesis" - the self-creating dan self-maintaining character dari living systems.

Complexity theory dan emergence theory provide additional perspectives on logical thinking sebagai emergent property dari complex adaptive systems. Logical patterns, dalam this view, are not reducible ke simpler components tetapi represent novel organizational properties yang emerge dari interactions among simpler elements. Motivational dimension dari logical structures reflects their role dalam maintaining system coherence dan promoting adaptive responses to changing environments.

Toward Integral Understanding of Logic.

Reconceptualizing logic as "the pattern and motif of an arrangement that is consistent with the dimensions of reality and its abstract" opens up possibilities for a more integral understanding that overcomes traditional dualisms between formal and informal logic, abstract and concrete thinking, individual and social rationality. This approach recognizes that logical thinking is neither purely formal manipulation of symbols nor merely empirical generalization of experience, but a complex activity that involves multiple dimensions of human existence.

Understanding logical patterns sebagai having motivational dimension connects logical thinking dengan broader concerns about meaning, value, dan purpose dalam human life. This does not reduce logic ke merely subjective preference or arbitrary choice, tetapi recognizes bahwa rational inquiry is always motivated inquiry yang is oriented toward goods yang transcend immediate practical concerns. Logical thinking, dalam this sense, is expression dari what Aristotle calls "the desire to know" - fundamental orientation toward truth dan understanding yang characterizes human nature.

Recognition bahwa logical patterns operate dalam tension between reality dan abstraction helps us understand both the power dan the limitations dari logical thinking. Logical operations can achieve remarkable precision dan universality, namun they always remain embedded dalam particular contexts dan open to revision dalam light dari new experience dan insight. This requires attitude dari what John Dewey calls "intelligent inquiry" - combination dari systematic rigor dengan openness to novelty dan change.

Future research dalam this area might explore more fully the implications dari this reconceptualization untuk education, scientific methodology, dan social practice. If logical thinking is indeed grounded dalam existential structures dan motivated oleh fundamental life concerns, maka approaches to logical education should emphasize not only technical competence tetapi also wisdom dan practical judgment. Similarly, scientific methodology should recognize the hermeneutical dan dialogical dimensions dari rational inquiry, while social practice should create institutions yang support the kinds of communicative practices dalam mana healthy logical thinking can flourish.

Ultimately, understanding logic as the pattern and motive of the structure recognizes that rational thinking is not an isolated cognitive activity but an integral aspect of human flourishing that connects individual development with social transformation and spiritual growth. This integral approach to logical thinking provides the foundation for what we might call "wisdom traditions" in contemporary contexts –

approaches to inquiry and practice that integrate rigorous thinking with a deep understanding of human nature and the cosmic order.

Reference

Husserl, E. (1900-1901). *Logische Untersuchungen* [Logical Investigations]. Max Niemeyer Verlag. Husserl's groundbreaking analysis of the relationship between logical structures dan phenomenological constitution of consciousness provides the foundation for understanding logical patterns sebagai expressions dari intentional consciousness rather than merely formal systems, demonstrating how logical operations are grounded dalam pre-reflective syntheses yang organize experience into coherent wholes.

Heidegger, M. (1927). *Sein und Zeit* [Being and Time]. Max Niemeyer Verlag. Heidegger's existential analytic of Dasein reveals how logical thinking is not neutral cognitive activity tetapi fundamental mode of Being-in-the-world yang is structured oleh care dan temporality, showing how what we call logical "motifs" are expressions dari existential structures yang constitute human existence itself.

Hegel, G.W.F. (1812-1816). *Wissenschaft der Logik* [Science of Logic]. Johann Leonhard Schrag. Hegel's dialectical understanding of logical development demonstrates how logical patterns are not static structures tetapi dynamic processes melalui mana reality constitutes itself, revealing the motivational dimension dari logical thinking sebagai expression dari absolute Spirit's self-realization melalui contradiction dan synthesis.

Merleau-Ponty, M. (1945). *Phénoménologie de la perception* [Phenomenology of Perception]. Gallimard. Merleau-Ponty's analysis of embodied consciousness shows how logical thinking is grounded dalam corporeal intentionality dan motor responses to environment, demonstrating that logical patterns have motivational dimension karena they reflect fundamental ways embodied consciousness orients itself toward world untuk practical dan theoretical purposes.

Gadamer, H.-G. (1960). *Wahrheit und Methode* [Truth and Method]. J.C.B. Mohr. Gadamer's hermeneutical philosophy reveals how logical patterns require

interpretation yang takes into account historical horizon dan dialogical context, showing how logical thinking is fundamentally communicative activity yang aims at mutual understanding melalui fusion of horizons rather than merely individual cognitive operation.

Dewey, J. (1938). *Logic: The Theory of Inquiry*. Henry Holt and Company. Dewey's pragmatist approach to logical thinking emphasizes its problem-solving character dan practical orientation, demonstrating how logical patterns are tools untuk transforming indeterminate situations into determinate ones melalui intelligent inquiry yang is motivated oleh practical needs untuk understanding dan control.

Wittgenstein, L. (1953). *Philosophische Untersuchungen* [Philosophical Investigations]. Basil Blackwell. Wittgenstein's later philosophy reveals how logical patterns are features dari language games yang are embedded dalam forms of life rather than abstract mental structures, showing how logical operations derive their meaning dari use dalam practical contexts rather than dari formal definitions.

Varela, F. J., Thompson, E., & Rosch, E. (1991). *The Embodied Mind: Cognitive Science and Human Experience*. MIT Press. This groundbreaking work dalam cognitive science demonstrates how logical thinking emerges dari embodied interaction dengan environment rather than abstract manipulation of mental representations, revealing how logical patterns are grounded dalam sensorimotor experience dan shaped oleh structural coupling between organism dan environment.